

In the claims:

Please amend the claims as shown below:

5 1. (Original) A method of mapping a dynamic synchronous transfer mode (DTM) frame onto an optical network frame, comprising:

10 (a) providing a dynamic transfer mode ring topology (10, 12, 14) comprising a first node (16, 22, 60), a second node (61), a third node (62) and a fourth node (63), a first segment of the dynamic transfer mode ring topology extending from the fourth node (63) to the first node (60), a second segment of the dynamic transfer mode ring topology extending from the second node (61) to the third node (62) so that the second segment is being disjointed from the first segment, the dynamic transfer mode ring topology carrying a plurality of (n)-bits of DTM slots each having (n-1) data bits and one control bit, an optical network in communication with the dynamic transfer mode ring topology, the optical network

15 20 having a byte frame format including (m)-bits per byte [frame format], (n-1) and (m) being integers so that (n-1) is an integral multiple of (m) and (n) is a non-integral multiple of (m);

25 (b) grouping the data bits (326a-326p) into an (m)-bit data group (325);

30 (c) grouping the control bits (328, 330) into an (m)-bit control group (327), the data bits (326a-326p) in the data group (325) being separate from the control bits (328, 330) in the control group (327);

35 (d) forming a (m)-bit DTM set (329) of the data group (325) and the control group (327) so that the first bit of each data slot is only positioned on a first position of one of the m-bit byte frames on the optical network;

40 (e) mapping the DTM set (329) onto an (m)-bit optical

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network frame on the optical network; and

(f) simultaneously transmitting information in a first data slot over the first and second disjointed segments of the dynamic transfer mode ring topology.

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2. (Original) The method according to claim 1 wherein step (a) further comprises providing 65-bit DTM slots (315, 317) each having 64 data bits (302) and 1 control bit (305) and step (b) further comprises grouping the data bits into 8-bit data bytes and step (c) further comprises grouping the control bits (305) into 8-bit control bytes (328, 330).

10 3. (Original) The method according to claim 2 wherein the method further comprises associating a first control bit (305a) of the control bytes with a first DTM data bit (326a) of the 8-bit data bytes.

20 4. (Original) The method according to claim 1 wherein step (d) further comprises providing the DTM set (329) with a bit configuration that is an integral multiple of an (m)-bit frame format of the optical network.

25 5. (Original) The method according to claim 1 wherein the method further comprises providing the optical network with a payload capacity that is an integral multiple of a total size of the DTM set (329).

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6. (Currently amended) A method of mapping a dynamic synchronous transfer mode (DTM) frame onto an optical network frame, comprising:

5 (a) providing a DTM topology having a first node (16, 22, 60), a second node (61), a third node (62) and a fourth node (63), a first segment in the first dynamic transfer mode ring topology extending from the first node (60) to the second node (62), the DTM topology carrying a plurality of 65-bit DTM slots (315, 317) each having 64 data bits (302) and 1 control bit (305);

10 (b) grouping the data bits into 8-bit data bytes (326a-326p);

15 (c) grouping the control bits into 8-bit control bytes (328, 330), the data bytes being separate from the control bytes;

19 (d) forming a DTM set (329) of the groupings of data bytes and the control bytes;

20 (e) connecting the DTM topology to a synchronous optical network having a 8-bit frame format;

25 (f) mapping the DTM set onto the 8-bit frame format of the synchronous optical network so that the first bit of each DTM slot is only positioned on the first bit of one of the optical network frames; and

(g) transmitting the DTM set in the optical network frame without drifting the DTM set in the 8-bit frame format of the synchronous optical network.

7. (Original) The method according to claim 6 wherein the method further comprises associating each control bit (305) of the control bytes (328, 330) with a group of data bytes (326a-326p) so that a first control bit (305a) is associated with a first group of 64 data bits (326a) and a second control bit (305b) is associated with a second group of 64 data bits (326b).

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8. (Original) The method according to claim 6
wherein the method further comprises providing the DTM set
(329) with 128 bytes of data bits and 2 bytes of control
bites and grouping the 128 bytes of data bits together into
5 DTM slots each having 64 bits of data bits.

9. (Original) The method according to claim 1
wherein the method further comprises providing the optical
network with a payload frame capacity that is an integral
10 multiple of a total bit size of the DTM set (329).